

# ALL-Purpose Remote Transport System (ARTS)

US Air Force Research Laboratory, Tyndall Air Force Base, Florida  
Force Protection Branch (AFRL/MLQF)

## MISSION:

The All-Purpose Remote Transport System (ARTS) is a low-cost survivable platform capable of remote tele-operations in various mission profiles. The system can remotely employ a array of tools and attachments to detect, analyze, and render safe large IEDs and clear UXOs from prepared areas. In addition, the system can employ a host of advanced navigation, control and sensing systems.

To meet urgent needs the ARTS has served tem to meet real world missions.

## CAPABILITIES:

The ARTS uses a commercially available medium-sized platform with an Air Force Research Laboratory (AFRL) developed modular teleoperated control system that enables remote operations up to 3 miles line-of-sight. AFRL has also developed several remotely controlled tools that allow an operator to remain at a safe stand-off distance from suspect UXOs and/or IEDs. These include a frangible blade assembly to clear paths so EOD personnel can safely travel to dispose of the UXO. An articulated manipulator attachment which enables an operator to investigate large suspicious packages, recover, and dismantle UXOs. A water cutting tool cuts into and through all types of explosive ordnance, a 90mm water cannon, and a charge setter which provides EOD personnel with stand-off to render UXOs safe.

With the bombing of Khobar Towers, the Air Force had an immediate requirement for force protection. integrating a 90mm water cannon on the ARTS.



## REQUIREMENTS DOCUMENT:

The Operational Requirements Document for ARTS was approved by the Air Force (ORD CAF (USN) 014-93 I/II-A). Supporting documentation is found in Mission Needs Statements for Active Range Clearance and Enhanced Force Protection Capabilities.

## PROGRAM STATUS:

The Air Force Research Laboratory (AFRL), Material and Manufacturing Directorate, Aerospace Expeditionary Force Division, Force Protection Branch (AFRL/MLQF) at Tyndall AFB, FL is the material developer for the ARTS.

The ARTS completed Operational Testing in December 96 at Nellis AFB where it windrowed hundreds of BLU 97A/B cluster munitions, withstanding six detonations. Before the system could enter production, prototype systems with a 90mm cannon were deployed to Kuwait and Saudi Arabia.

Nineteen production systems have been fielded. Air Force anticipates requirements for 21 additional systems.



## Point of Contact:

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